

Professor of Advanced Semiconductor Packaging

Department	National Manufacturing Institute Scotland (NMIS) (www.nmis.scot/)				
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)				
Staff Category	Academic				
Reports To	Director of Electrification	Grade	Professorial		
Salary Range	Salary commensurate with experience and standing	Contract Type	Open Contract		
Working Arrangements	Hybrid. The standard requirement across the University is that at least three days per week (based on IFTE) will be spent working on-site (with flexibility as appropriate).				
Work Location	National Manufacturing Institute Scotland	ł, UK			

















Job Advert

Prestigious Global Talent Fund Opportunity

The University of Strathclyde has been awarded significant funding by UK Research and Innovation's Global Talent Fund to recruit leading international researchers in areas of national and global strategic importance. As one of only 12 UK institutions to secure this highly prestigious investment, Strathclyde is uniquely positioned to accelerate its world-class strengths at the intersection of research excellence, industry collaboration and societal impact.

This landmark funding underpins the appointment of a new Professor of Advanced Semiconductor Packaging — a career-defining opportunity to shape the future of semiconductor integration technologies. You will drive innovation through the newly established National Advanced Semiconductor Packaging Integration Centre (NASPIC) at the Advanced Net Zero Innovation Centre (ANZIC) facility. The Centre is one of a kind as it has been designed to allow for a broad range of present and future devices. Its open access governance model is unique in Europe and very rare elsewhere. The NMIS ASPC requires a Principal Investigator to work in a challenging applied R&D environment to explore and develop disruptive packaging and integration technologies to make next-generation systems lower cost with more energy and packaging efficiency.

The Professor is an Academic with in-depth knowledge and understanding of all the various aspects of advanced package development that include design, assembly, testing and validation. You will have led a similar activity in the past and be Industry facing. You will have direct contributions to technical solutions that integrate multiple disciplines or technologies to develop advanced semiconductor packaging applications. You should have a clear understanding of current and proposed competitive solutions, key performance indicators, and end-user mission objectives as well as an understanding of the interplay between technologies and engineering design.

The Professor will be required to lead a wide range of diverse disciplines as part of an integrated research project team, working closely alongside the Principal Engineer and the Engineering Faculty to deliver these tasks on time, quality, and cost. In addition to cross University work, you will also be required to lead investment programs, develop research programs around advanced packaging, consult on the development and submission of CR&D bids with industry, network with other capabilities around the UK and abroad building on the National Advanced Semiconductor Packaging Integration capability in ANZIC.

Professor is recognised nationally and internationally in semiconductor packaging with an excellent and broad knowledge of engineering, science and technology with prior experience in academia. Industry facing though, the Professor will be able to analyse and translate industrial problems to help exploit our advanced packaging design, materials, assembly process, interconnects and testing facilities.

Professor will report to the Director of Electrification with cross University reporting to the Dean of Engineering, deputising as required for the Director of Electrification, the person will exemplify the behaviours and values of collaboration, innovation, and trust. You will be closely working alongside the Director of Electrification in developing the future strategy, investments and business planning with special regard to the future technology roadmaps in Advanced Packaging. You should have excellent leadership and team working skills, working collaboratively and cooperatively with colleagues both at ANZIC and in the Engineering Faculty, and should be able to communicate with other team members in an encouraging and supportive way.

To be considered for the role, you will have a PhD in relevant engineering/science (Mech, Materials, Electrical, Physics) discipline with substantial experience in industrial engagement. You will have an established national and emerging international reputation for advanced packaging and a sustained and outstanding track record of delivering high quality packaging solutions with clear strategic benefit to the customer and the University.

Job Description

Brief Outline of Job:

To lead the development of the NASPIC capability in equipment, processes and people both at ANZIC and in the Faculty of Engineering. This will deliver exemplary technical solutions for commercial customers, collaborative Research and Development and the advancement of skills for Advanced packaging. You will coordinate, with faculty, the modules to be delivered as part of the development of a pipeline of graduates and postgraduates in Semiconductor Packaging. Be the technical authority for the research aspects of the NASPIC. Create nationally and internationally, a reputation for competence and academic excellence in Advanced Packaging. Be the consulting authority in the future development of the facility.

Main Activities/Responsibilities:

- In collaboration with Industry develop the strategy and delivery of the NASPIC, including, the future development of the facility keeping pace with technology development and pushing the installed equipment to help with CR&D activity.
- Oversee development and delivery of the NASPIC growth through industrial engagement, securing innovative outcomes of national/international significance for industry and publicising excellence through regular and sustained professional publications, conferences, outreach events, etc.
- 3. Lead the development of the Power Electronics packaging curriculum and capability of the Faculty for industries needs. This will include working with PEDEC, EEE and PNDC positioning UoS, Glasgow, Scotland as a powerhouse in this space.
- 4. Help the Principal engineer develop and submit proposals to industrial and governmental funding of substantial value.
- Generate new advanced packaging approaches, with industry, at a national and international level to help grow UK advanced semiconductor packaging capability. Identify, adapt, devise and use appropriate knowledge exchange / research methodologies and techniques to further the reputation of the University and the NASPIC. Collaborate on the research in packaging with industry and academia.
- 6. Lead and develop national and international networks of professional experts from industry, researchers and leading thinkers in the field to foster collaborations of strategic significance, to identify and deliver NASPIC activity to generate income.
- 7. With industry develop and embed a strategy for securing funding of significant value for CPD and consultancy activity and lead others in ensuring successful delivery and repeat business.
- Lead on the planning of projects, estimate resources to budget, and work on bids, technical proposals, and quotations, working 8. closely with the bid and commercial teams regularly reviewing technical risk assessments, investment opportunities and key appointments in your organisational reports
- 9. Oversee design and development of various semiconductor systems and demonstrators for industry using a combination of technologies. With industry, provide technical guidance on design, test, and validation activities.
- Working with industry and delivery partners, play a leading role in the strategic development of the Skills pipeline of Packaging engineers by ensuring the development of modules and courses for the faculty to deliver degree qualified engineers for the future development of the sector and NASPIC.
- 11. Engage in continuous professional development.

Person Specification

Educational and/or Professional Qualifications (E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)		Assessment Method
EI PhD in relevant engineering/science (Mech, Materials, Electrical, Physics) discipline with	Essential	Application/CV
substantial experience in industrial engagement and academic excellence.		

DΙ	Membership of relevant Chartered/professional bodies (for example the Higher Education Academy).	Desirable	Application/C\
Ex	perience		
E2	Experience in multi-disciplinary engineering activities including semiconductor and systems assembly, test, manufacture, and prototype development	Essential	App/CV/ Interview
E3	An established national and emerging international reputation for ASPC activity which is evidenced by professional track record.	Essential	App/CV/ Interview
E4	Proven and demonstrable ability to develop close working relationships with the Technical Leads and the ability to build relationships with external customer base, looking for future commercial and collaborative opportunities	Essential	App/CV/ Interview
E5	Demonstrable experience in leading semiconductor device and systems projects, and work packages, ideally across a multitude of different markets, when necessary, make a strategic contribution and play a senior and leading role in a successful outcome.	Essential	App/CV/ Interview
Jol	b Related Skills and Achievements		
E6	Extensive track record of leading a centre for industrial engagement in semiconductor advanced packaging solutions and systems building reputation and securing funding of substantial value and managing associated projects.	Essential	App/CV/ Interview
E7	Experience of managing large programmes and novel custom solutions, at cost, on time and acceptable quality across the varied sectors covered by the ASPC.	Essential	App/CV/ Interview
E8	Established links at a strategic level with industry and relevant technology leaders	Essential	App/CV/ Interview
E9	Proven staff, budget and project management skills.	Essential	App/CV/ Interview
D2	Familiar with engineering lifecycle management and a history of translating research output into working prototypes	Desirable	App/CV/ Interview
Рe	rsonal Attributes		
EIO	Excellent leadership, interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.	Essential	Interview

Application Procedure

Applicants should visit Strathclyde's vacancies portal and complete an online application form including the name of three referees who will be contacted without further permission, unless you indicate you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job as well as a Research Plan outlining your research strategy for the next 5 years. Applicants should also complete the Equal Opportunities Monitoring Form.

University of Strathclyde encourages the recruitment of disabled and neurodivergent candidates. If you need any reasonable adjustments during the recruitment process, please let us know. You are welcome to submit a paper application or a CV instead of the online application form by contacting us at https://www.humanresources@strath.ac.uk.

Interviews

Formal interviews for this post are expected to be held in November 2025.

The University is a Disability Confident Employer and operates a guaranteed interview scheme for disabled candidates who meet all the essential criteria for the post that they are applying for.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (http://www.strath.ac.uk/hr/workforus).

Informal enquiries about the post can be directed to Matt Boyle, Director – Electrification, NMIS (matt.boyle@strath.ac.uk)

Conditions of Employment

Conditions of employment relating to the Academic staff category can be found at: <u>Conditions of Employment</u> and <u>Professorial Zoning</u>.

Rewards and Benefits

Our comprehensive benefits package, including generous annual leave, family-friendly benefits, flexible work options, and a commitment to continuous learning, reflects our appreciation for the valuable contributions of our colleagues.

We understand that each staff member has unique priorities and lifestyles, so our diverse benefits ensure there is something for everyone, details of which can be found on our <u>Rewards and Benefits webpage</u>.

- **Financial Rewards:** We provide attractive financial packages, including competitive salaries, relocation support for employees and a generous pension scheme, with university contributions of 14.5%.
- Work-Life Balance: We are dedicated to enhancing healthy work-life balance for our employees. We offer
 generous annual leave, an additional annual leave purchase option, flexible and agile work arrangements.
 - Annual Leave: Generous entitlement of 27 days (Grade 5 and below) or 31 days (Grade 6 and above), in addition to 11 public holidays and University closure days.
 - Additional annual leave purchase: Option to request purchase of 2 weeks' additional annual leave per year.
 - Flexible and agile working: The University provides flexible work arrangements. You can request arrangements that fit you and your role, such as hybrid, part-time, compressed hours, term-time, adjusted shifts, staggered hours. These requests can be made from the first day of your employment.
- Family Friendly Benefits: We offer a variety of enhanced family-friendly benefits to support our employees in balancing work and family responsibilities. These include Maternity Leave, Paternity/Maternity Support, Adoption Leave, Shared Parental Leave, Parental Leave, Carers Leave and support, Family Friendly Research & Scholarship Leave, and access to our on-campus nursery.
- Career Development: Our commitment to personal development is reflected in initiatives such as
 professional courses, subsidised educational programs, coaching and mentoring, leadership development,
 secondment opportunities, and access to our library.
- Health & Wellbeing: We place high importance on the safety, wellbeing, and health of all our staff and offer discounted Strathclyde Sport membership, an Employee Assistance Programme (EAP), Occupational Health Service, and Cycle to Work scheme.
- Recognition Awards: At Strathclyde, we place a strong emphasis on acknowledging and rewarding our staff's
 commitment and exceptional contributions. This is demonstrated through our Long-Service Awards and our
 Values-based Strathclyde Medals.

PVG Check

This position involves regulated work, making it a legislative requirement that the successful candidate becomes a member of the Protection of Vulnerable Groups Scheme. If appointed, employment with the University will not be confirmed until membership of the Scheme has been received. The successful applicant will be precluded from working with protected groups until that time.

Basic Disclosure

This role requires the satisfactory outcome of a Basic Disclosure Scotland Check. The successful applicant will be asked to carry out a Basic Disclosure Scotland Check (or where based overseas, a Criminal Records Check will be required - details here). Whether an outcome is satisfactory will be determined by the University.

Pre-Placement Health Screening

If you are offered a job with us, you'll be encouraged to let us know about any disability, medical condition, or neurodivergence you have by completing a confidential pre-placement health questionnaire. Completing the questionnaire is entirely voluntary but by doing so we can put in place the right support and make any reasonable adjustments before you start.

Probation

Where applicable, the successful applicant will be required to serve a 12 month probationary period.

Pension

The successful applicant will be eligible to join Universities' Superannuation Scheme. Further information regarding this scheme is available from Payroll and Pensions.

Relocation

Where applicable, the University offers a relocation package to support new employees who meet the eligibility criteria. The relocation package is offered as a contribution towards costs incurred, and is designed to be flexible, allowing staff to use the financial support available in the way that will be most helpful to them. Further details are outlined in the Relocation Policy.

Equality and Diversity

The University of Strathclyde is a socially progressive institution that strives to ensure equality of opportunity and celebrates the diversity of its student and staff community. Strathclyde is people-oriented and collaborative, offering a supportive and flexible working culture with a deep commitment to our <u>equality</u>, <u>diversity and inclusion charters</u>, <u>initiatives</u>, <u>groups and networks</u>.

We strongly encourage applications from Black, Asian and minority ethnicity, women, LGBT+, disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

The University currently holds an Athena Swan **Silver award**, recognising our commitment to advancing women's careers in science, technology, engineering, maths and medicine (STEMM) employment in academia.

University Values

The University's Values capture what we're all about: who we are, what we believe in and what we stand for. Our Values have been derived from how we act and how we expect to be treated as part of Strathclyde.

In delivering our People Strategy, we will contribute, act, and make decisions guided by these values.

- **People-oriented:** committed to our staff and students, providing opportunities, and investing in their development.
- **Bold:** confident and challenging in what we do, and supportive of embracing appropriate and managed risk in our decision-making.
- **Innovative:** focused on discovering and applying knowledge with impact and encouraging creative thinking and new ideas.
- **Collaborative:** working together, with our colleagues and external partners, with integrity and in an open, respectful way.
- Ambitious: for our institution, staff and students as well as supporting the ambitions of our partners.















